

Man, Land, & Sea

A publication by Guam Coastal Management Program

June 26, 2020



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**THE OFFICE OF VICE SPEAKER
TELENA CRUZ NELSON**
COMMITTEE ON EDUCATION, AIR TRANSPORTATION,
AND STATISTICS, RESEARCH, AND PLANNING
I MINA'TRENTAI SINGKO NA LIHESLATURAN GUAHAN | 35th GUAM LEGISLATURE

From the Vice Speaker's Desk

Buenas yan Hafa Adai! My fellow people of Guam, as our island continues to respond to one crisis, we must not forget the challenges we continue to face when it comes to preserving our land and sea for future generations of Guam. Across our beautiful island, we have been blessed with the natural riches of our land and sea, which have sustained the CHamoru people for centuries. Today, as we continue to reap the riches of our natural environment, we are still faced with threats and challenges to preserving the integrity and quality of our land and sea.

Sustainability is key in our efforts and prioritizing sustainability as individuals and families could go long ways to ensuring that our people can provide for themselves while nurturing the Earth and lessening our dependence on mass-produced, store-bought items. Our CHamoru ancestors for centuries have served as our greatest example of sustainability. Through ancient fishing and farming practices, including various native fruit, vegetables and livestock. Our ancestors had no shortage of nutritious food and all the health benefits associated with them. Truly, we can look to our ancient practices for a more sustainable, self-sufficient future. Think about it, if we had been practicing these sustainable efforts prior to the current public health crisis, there would be less of a need to venture out to grocery stores, lessening the risk of spreading disease and reducing our personal spending. This sense of sustainability is something we can still work towards together as an island community. We can plant fruit-bearing trees and plants at home and take the time to grow nutritious home gardens. We can also use these sustainable methods to sell local produce at our growing neighborhood farmers markets and, through the fruits of our labor, receive additional income. We're seeing more local farmers taking their produce to our farmers markets and many more people choosing to support and eat local. This is indicative of our growing food sustainability and our increasing ability to rely on locally produced and sourced food. We must continue on this path of sustainability and continue to support those working to create a more sustainable future.

Un Dangkulu Na Si Yu'os Ma'ase, thank you very much, to the Bureau of Statistics and Plans, Guam Coastal Management Program and our government, nonprofit, business and community partners for stepping up to pave the way forward. Those who will inherit our land and sea, our children and grandchildren, will be grateful for the actions we take today that sustain not only our environment and natural resources, but also the foundation of our CHamoru people and way of life.

Senageramente,

Teleña Cruz Nelson
Vice Speaker & Majority Leader, 35th Guam Legislature

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“Our CHamoru
ancestors
for centuries
have served as
our greatest
example of
sustainability.”



COASTAL FELLOW

Selected for the Guam Coastal Management Program Office

Chelsey A. Willets, a 2020 master's graduate from the University of Wisconsin-Madison has been selected to begin a mentorship program as the NOAA Coastal Management Fellow in August with the Guam Coastal Management Program (GCMP) at the Office of the Bureau of Statistics and Plans (BSP). BSP Director Tyrone J. Taitano stated, "This is a great opportunity for Guam. We will have the services of this Coastal Fellow for two years with 90% of the cost being funded by the federal government. The goal of this project will be to work under the Bureau of Statistics and Plans' central planning authority to finalize the Seashore Reserve Plan as authorized by the Guam Territorial Seashore Protection Act of 1974."

Chelsey has been commended for her academic and leadership achievements and endorsed by the U.S. Wisconsin Sea Grant Office in her work as a coastal engineer and fisheries specialist on a project focusing on green infrastructure and artificial reef construction on the Lake Michigan shore. She has led numerous volunteer activities and served in the U.S. Peace Corps in Nampula, Mozambique for the last 3 years.

"Although I grew up inland, I spent many summers exploring various shorelines of the Atlantic Ocean and Gulf of Mexico. In 2016, I joined the Peace Corps and was sent to one of the most diverse coastlines in the world, Mozambique. My interest in coastal environments grew when I traversed into the underwater world through scuba diving. I witnessed the effects of ocean acidification, invasive marine species, and destruction caused by tropical storms. These experiences raised my awareness to the variety of threats facing our coastal ecosystems," stated Chelsey.

Chelsey receives her Master of Science in Environmental Conservation in July 2020 from UW-Madison with a focus on Coastal Resilience, Management and Sustainability, Conservation, Planning and GIS Mapping. Her goals for participating in this fellowship are to apply new ideas and perspectives from other fellows and organizations, and to network with coastal management professionals working on real-world problems faced by local and federal governments, as well as the private sector.



Chelsey A. Willets, 2020 GCMP Coastal Fellow

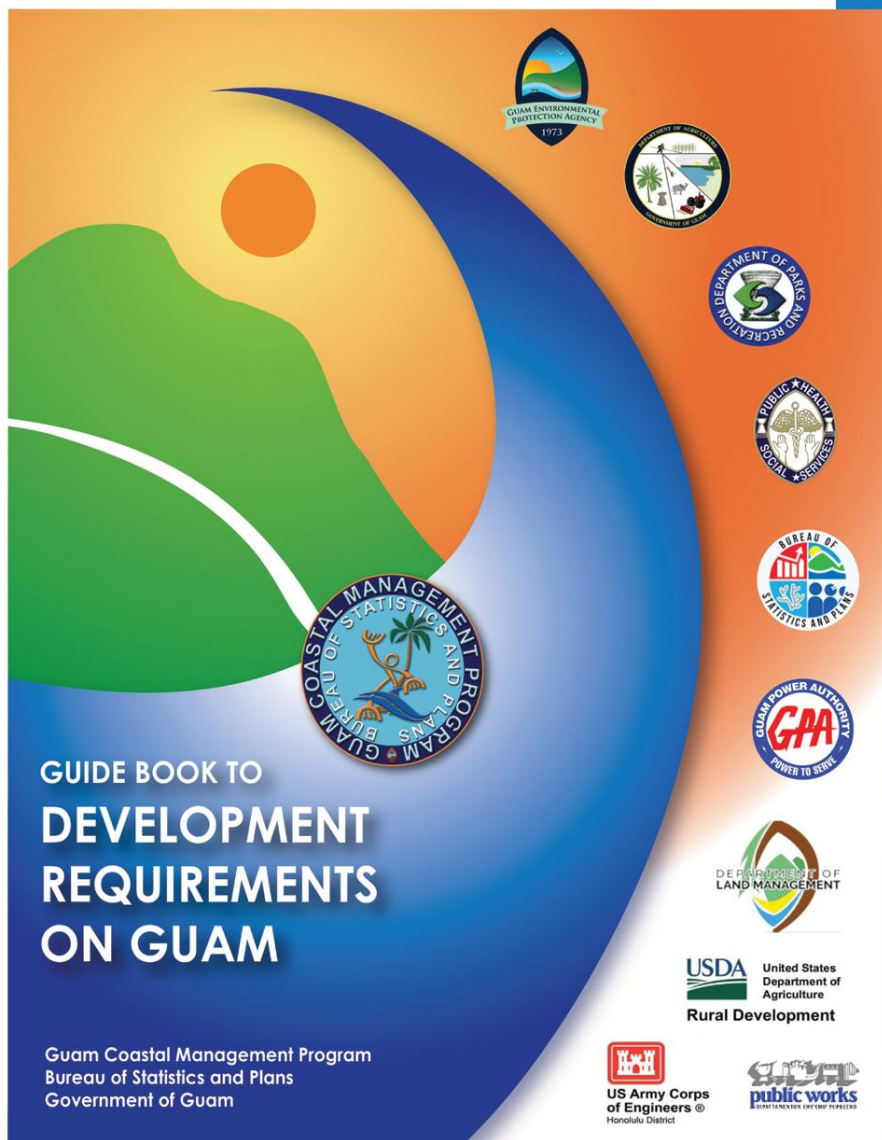
The NOAA Coastal Management Fellowship and Digital Coast Fellowship Programs match postgraduate students with key NOAA partners to work on specific projects for two years. The Guam Coastal Management Program, was one of nine organizations nation-wide that was successful in submitting an accepted proposal under the Coastal Fellowship Program. After a week of interviews, presentations, and matching exercises, GCMP is pleased to welcome Chelsey to her new fellowship role. Mr. Edwin Reyes, GCMP Administrator and author of the Guam's proposal stated, "BSP has been making progress with becoming a leader in planning, and together with Chelsey's expertise and leadership skills, we will have a great chance in creating a Seashore Reserve Plan that speaks to our people's desires of the sea for the future."

FOR MORE INFORMATION,
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Bureau of Statistics and Plans Releases New Guam Permitting Guidebook

By: Guam Coastal Management Program



Visit our web site for more information:

www.bsp.guam.gov

A publication of the Guam Bureau of Statistics and Plans
pursuant to National Oceanic and Atmospheric Administration
Award No. NA17NOS4190202



The Bureau of Statistics and Plans (BSP) - Guam Coastal Management Program (GCMP) updated its Development Requirements on Guam Guidebook. The guide provides a comprehensive overview of major permitting requirements and processes with regards to Guam public laws, regulations, permits, clearances and established guidelines for development on Guam.

The Government of Guam strives to provide timely, thorough, and professional plan reviews and permit approvals. An essential element of our success in achieving that goal is receiving complete, legible, and well-organized submittal documents and applications. The guide outlines each type of requirement for development, cites the government agency and authority for approval, describes the application review process, presents facsimiles of appropriate applications, and provides additional references to enhance and streamline the permitting process.

Appendix E of the guide is a permitting matrix to assist individuals in preparing permit submittals, complete and ready for review. The matrix identifies general project types and lists the typical types of plans, specifications, calculations, reviews, approvals, or other agency permits required. Applicants may contact the agency directly for information on the referenced approvals. The matrix is an appendix to the Development Requirements Guidebook, which may be obtained on our website at www.bsp.guam.gov.

The Bureau of Statistics and Plans, under which the Guam Coastal Management Program operates, is vested with the authority to coordinate and improve governmental planning and information gathering programs through Public Law 12-200 and as amended by 20-147.



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\$2.9M Grant Provides Critical PPE Supplies for Guam Covid-19 First Responders.



LT. Governor
Joshua Tenorio
and BSP Director,
Tyrone Taitano
distribute PPE supplies
to representatives from
Guam DOC and DYA
as part of a BSP secured
federal grant from the
U.S. Department of Justice.



The Department of Corrections (DOC) and Department of Youth Affairs (DYA) received the first shipment of coronavirus sanitation supplies funded under a federal grant and earmarked for criminal justice agencies this week. Supplies included surgical masks, hand sanitizers, thermometers, alcohol wipes, face shields, and alcohol. Other

“...our goal has been to fully access all available federal funding and get this support into the hands of our first responders as quickly as possible”

— Governor Lou Leon Guerrero

criminal justice agencies will also receive supplies from this grant, including the Guam Police Department (GPD), Guam Customs and Quarantine, the Public Defender's Office, and the Judiciary of Guam.

“From the start, our goal has been to fully access all available federal funding and get this support into the hands of



our first responders as quickly as possible,” stated Governor Lou Leon Guerrero.

The \$2.9 million U.S. Department of Justice Coronavirus Emergency Supplemental Funding Program Grant was secured last month by the Bureau of Statistics and Plans (BSP).

by BSP to hire a nurse for DYA to help with the intake of clients and to purchase four new ambulances for the Guam Fire Department (GFD) which are expected to arrive in June. The grant is also being used to fund several other needs, including Personal Protective Equipment (PPE) for every local law enforcement officer, four new GPD law enforcement vehicles, and two new GFD command vehicles.

Lieutenant Governor Joshua Tenorio was present during the presentation at the BSP office and greeted DOC personnel picking up supplies. He stated, “All our law enforcement personnel are doing an impressive job during this emergency. It’s our obligation to see them get the supplies they need to help keep them safe.”



Former Guam Coral Fellows Develop Roots in Guam

By: Steven Dierking

For the last several years, the Guam Bureau of Statistics and Plans (BSP) has applied for and received over 90% federal funding to recruit, train and mentor candidates as part of the National Coral Fellowship Program. The program is a partnership between NOAA's Coral Reef Conservation Program, the U.S. Department of Interior Office of Insular Affairs, Nova Southeastern University's Halmos College of Natural Sciences and Oceanography, and the U.S. Coral Reef All Islands Committee.

NOAA's National Coral Reef Management Fellowship is a two-year program established to respond to the need for additional coral reef management capacity in seven priority states and territories, including Guam, Commonwealth of the Northern Mariana Islands, American Samoa, Florida, Hawaii, Puerto Rico, and the U.S. Virgin Islands. The fellowship provides state and territorial coral reef management agencies with highly qualified candidates whose education and work experience meet each jurisdiction's specific needs, while providing the individual fellows with professional experience in coastal and coral reef resources management, according to NOAA Coral Reef Conservation Program website.



Whitney Hoot, a former Guam Coral Fellow, now Guam resident and full-time Coral Reef Resilience Coordinator with BSP explained that, "These two-year fellowships bring in highly qualified candi-

dates to do specialized projects that are determined by the needs of each jurisdiction. Each cycle, the project is different. I was the Coral Fellow on Guam from 2016 to 2018." Whitney is a native of Maryland and now resides in the village of Asan. She holds a M.S. in conservation biology and sustainable development from the University of Maryland, College Park and a BA in sociology and environmental science from Barnard College, Columbia University. She is also a current PhD student through a University of Guam partnership with the University of Alaska, Fairbanks. Her research is focused on integrating science and management to enhance the success of coral reef restoration efforts in the Pacific Islands. Whitney explained, "I decided to stay on Guam after completing my fellowship because it felt like I still had work to do here and I could continue to contribute to coral reef management efforts. Also, I am very passionate about coral reef restoration and as we have been scaling up our restoration efforts here in recent years, staying on Guam seemed like a great opportunity to become more involved in this work. I love being part of this community and we have an incredible team of people doing this work. I love living on Guam and the Pacific feels like home. I previously lived on Pohnpei from 2010 to 2012 before I returned to the states for a couple of years to complete a master's degree."



Mallory Morgan, the Guam Coral Fellow in 2018 has also decided to call Guam home after completing her two-year fellowship with the program. Originally from Cocoa Beach Florida, she received her Master's in Marine Biodiversity and Conservation from Scripps Institution of Oceanography at

University of California, San Diego and a Bachelors in Environmental Science and International Relations from Florida State University, and lived and worked in Fiji, Bali, Costa Rica, and briefly the Bahamas before moving to Guam. Mallory now works as a Sustainable Marine Tourism Coordinator with BSP's Guam Coral Reef Initiative and chose to stay on Guam after the two-year fellowship because she saw an obvious need to continue the momentum built in addressing impacts of tourism and recreational use on Guam's coral reefs. **"My fellowship was the first role of its kind on Guam dedicated to bridging the gap between tourism and coral reef management to reduce the impacts of recreational use on Guam's reefs."** Mallory explained she secured a federal grant to fund another 15 months of this work following her fellowship, with grant deliverables outlined by her two years working closely with hotels, marine tour operators, and the Guam Visitors Bureau. **"I currently live in Yona with my boyfriend (whom I met on Guam!) and two dogs. On weekends you can be sure to find me diving, hiking, open water swimming, or most recently surfing. I am also working in my free time for the Guam Census 2020, and I am still actively involved with a nonprofit dedicated to environmental restoration and education for youth on the San Pasqual Indian Reservation in San Diego,"** explained Mallory. BSP is confident as she continues her work in ensuring Guam's tourism sector weaves marine conservation and sustainability into their strategies and programs.





New 2020 Coral Fellow *Selected for the Bureau of Statistics and Plans.*

By: Steven Dierking

This year, the new 2020 Guam Coral Fellowship welcomes Cara

Lin, a Long Island, NY resident with a B.S. in Marine Sciences from Stony Brook University and M.S. in Biology from the Georgia Institute of Technology. Cara's work during the fellowship will focus on protecting and restoring Guam's mangroves and seagrasses. She will compile information such as historical reports, imagery, interviews, and local regulations to better understand the current state of these ecosystems, and use that knowledge to organize community-based restoration initiatives. She will also work with decision makers, local schools, and the public regarding the health and value of seagrass and mangroves communities. Additionally, Cara will assist the Guam Coral Reef Response Team with invasive species removal and monitoring efforts.

Protecting and Restoring Guam's Mangrove and Seagrass Habitats

Coastal mangrove and seagrass habitats are intrinsically linked to coral reef health. Mangroves and seagrasses can reduce impacts of Land Based Sources of Pollution (LBSP) and improve water quality by stabilizing sediment and absorbing nutrient runoff. Mangrove and seagrass ecosystems also serve as nurseries for many reef-associated fishes and invertebrates. Additionally, mangroves and seagrasses provide other ecosystem services, such as protecting coastlines during storms by absorbing wave energy and sequestering carbon at rates higher than terrestrial forests. This is often referred to as "blue carbon," which includes carbon that is stored in the buildup of decaying leaves and in coastal sediments. These characteristics of mangrove and seagrass habitats make them extremely valuable, both ecologically and economically.

In response to this need, Cara's focus will be to gather information to increase the understanding of Guam's seagrass and mangrove ecosystems, conduct public outreach and education related to these habitats, restore seagrass and mangrove habitats at priority sites around Guam and assist the Guam Coral Reef Response Team in addressing nuisance and invasive species issues.

Cara will be based at the Guam Department of Agriculture (DOAG), and will work closely with partners at the Guam Bureau of Statistics and Plans (BSP), the Guam Environmental Protection Agency (GEPA), the Guam Department of Parks and Recreation (DPR), the University of Guam Marine Laboratory (UOGML), the Guam Visitors Bureau (GVB), the National Oceanic and Atmospheric Administration (NOAA), the Department of Defense (DOD), the National Park Service (NPS), and The Nature Conservancy (TNC).



REYES ELECTED TO CSO LEADERSHIP

BSP's Guam Coastal Management Program Administrator, Edwin Reyes was elected as the Coastal States Organization (CSO) Executive Committee Regional Representative of the

Pacific Islands. "It is truly an honor to be nominated among my peers of national and regional coastal managers to serve in this role" said Edwin. For over 50 years, the Coastal States Organization has supported the nation's coastal states and territories by assisting them maintain a leadership role in the development and implementation of national and local coastal and ocean management and policy. This organization, whose main office is located in Washington, D.C. works closely with Congress to ensure coastal issues remain visible. The CSO is able to reach across its membership, which is comprised of coastal leaders from all the nation's coastal states, great lakes, and islands in order to maintain a national coastal and ocean management community of practice.

The CSO has many initiatives that work to improve coastal water quality, address coastal hazards and build resilience, as well as advancing ocean policy and island affairs. In addition to CSO's Executive Director, Legal Counsel, and staff, leadership is provided by an executive committee comprised of an elected Chair, Vice, Chair, Treasurer, and Regional Executive Committee members. Edwin will serve a 2-year term beginning 2020. "It has been amazing for me to see Edwin take on a leadership role with the CSO Executive Committee. He has always been active during our national meetings in Washington DC by sharing not only the many challenges he is facing on Guam but he is always eager to share examples and best practices of what can be done by bringing people together to solve local issues. Having visited Guam in 2019 and witness the great things GCMP is continuing to do for the island to address issues like flooding and other coastal hazards, I think Guam is well on its way to building more resilient coastal communities" said Bradley Watson, CSO Executive Director.



(L-R) Tyrone Taitano, BSP Director; Governor Lou Leon Guerrero; Bradley Watson, CSO Executive Director and Edwin Reyes, GCMP Administrator



26TH ANNUAL GUAM COASTAL CLEANUP

Save the Date - September 19, 2020



Young volunteers participate in GICC 2019 Cleanup of Guam's Southern Shores.

The Bureau of Statistics and Plans - Guam Coastal Management Program's Annual Guam International Coastal Cleanup (GICC) is scheduled for Saturday, September 19, 2020.

The International Coastal Cleanup was founded by the Ocean Conservancy in 1986 and for the past 30 years and has inspired millions of volunteers and industry players all over the world to take action by removing and recording trash during the International Coastal Cleanup.

Guam first joined in this worldwide effort on October 14, 1995 with three sites: Ylig Bay, Agat Shore, and Dungca's Beach and with only 450 volunteers. Guam is now participating in its 26th Annual Cleanup which has grown tremendously since 1995, with over 29 sites and over 5,000 volunteers collecting over 36,000 pounds of waste.



This event is significant to our island and the rest of the world. It is reported that trash entering the oceans have been dramatically increasing each year. Guam joins over 91 countries worldwide to prevent trash from entering our oceans and we would like to invite the community to come out and participate in this event. GICC is led by the Bureau of Statistics and Plans, Guam Coastal Management Program and is an island-wide effort with sponsors and volunteers from federal agencies, local government agencies, private businesses, non-profit organizations and many individual volunteers.



Reef and Beach volunteers from MDA participate in GICC 2019 shoreline and underwater reef Cleanup.



For more information please contact Steven Dierking at steven.dierking@bsp.guam.gov.



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**Man, Land, and Sea
Newsletter
June 26, 2020**

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The Man, Land and Sea newsletter
is funded by a grant from the U.S.
Department of Commerce, National
Oceanic and Atmospheric
Administration (NOAA)
through the Coastal Zone
Management Act of 1972, as
amended, administered by the
Office for Coastal Management
and the Guam Coastal
Management Program (GCMP)
of the Bureau of Statistics
and Plans, Government of Guam
through Cooperative Agreement
Award NA19NOS4190165,
[https://bsp.guam.gov/
guam-coastal-management-program/](https://bsp.guam.gov/guam-coastal-management-program/)

MAN, LAND AND SEA



WITH DAVE DUENAS

Newstalk



6:30 pm THURSDAYS



Give Us A Moment #GUAM Island Pride Beautification Event

Islandwide Beautification Cleanup

**JUNE 27
2020**
Go Time: 8 AM

How to participate:

Email: hafaadai@visitguam.org

Contact: Taylor Pangilinan at 671-686-4823

<https://bit.ly/GUAMBeautificationVolunteers>



Photo by Kenneth Lee



Give Us A Moment